SERIAL NO.3350

ONKYO® SERVICE MANUAL

COMPACT DISC PLAYER
MODEL DX-3700

Black model

BUDN, BUD	120V AC, 60 Hz
BUG	220V AC, 50Hz
BUU	110/120/220/240V AC, 50/60Hz
BUQA, BUQB	240V AC, 50 Hz

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ ON THE SCHEMATIC DIAGRAM AND IN THE PARTS LIST ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE THESE COMPONENTS WITH ONKYO PARTS WHOSE PARTS NUMBERS APPEAR AS SHOWN IN THIS MANUAL.

MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

SPECIFICATIONS

Signal readout system:	Optical non-contact
Reading rotation:	About 500~200 r.p.m. (constant linear velocity)
Linear velocity:	1.2~1.4m/s
Error correction system:	Cross interleave readsolomon code
Decoded bits:	18 bits linear
Sampling frequency:	352.8kHz (8 times oversampling)
Number of channels:	2 (Stereo)
Frequency response:	2Hz~20kHz
Total harmonic distortion:	0.003% (at 1kHz)
Dynamic range:	98dB
Signal to noise ratio:	106dB
Channel separation:	100dB (at 1kHz)
Wow and Flutter:	Below threshold of measurability
Power consumption:	16 watts
Output level:	2 volts r.m.s.
Dimensions (W×H×D):	435×118×312 mm 17-1/8″×4-5/8″×12-1/4″
Weight:	5.0kg, 11.0 lbs.

Specifications are subject to change without notice.

ONKYO
AUDIO COMPONENTS

SERVICE PROCEDURES

1. Safety-check out

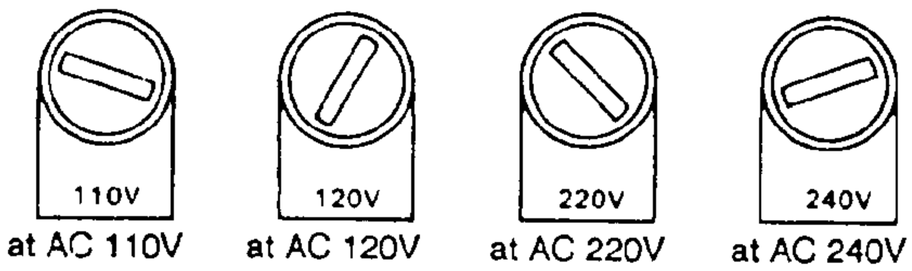
After correcting the original service problem, perform the following safety check before releasing the set to the customer:

Connect the insulating-resistance tester between the plug of power supply cable and chassis.

Specifications: more than 10Mohm at 500V.

2. Voltage selector (back panel)

Worldwide models are equipped with a voltage selector to conform with local power supplies. Be sure to set this selector to match the voltage of the power supply in your area before turning the power switch on. Voltage is changed by turning the voltage selector with a screwdriver or similar instrument to the 110V, 120V, 220V or 240V position. Confirm that the selector has been set to the correct position before turning the power switch on. If there is no voltage selector switch on the unit you have purchased, it can only be used in areas where the power supply voltage is the same as that of the unit.



at AC 110V at AC 120V at AC 220V at AC 240V

NOTE ON COMPACT DISC

- **Holding Compact Discs**

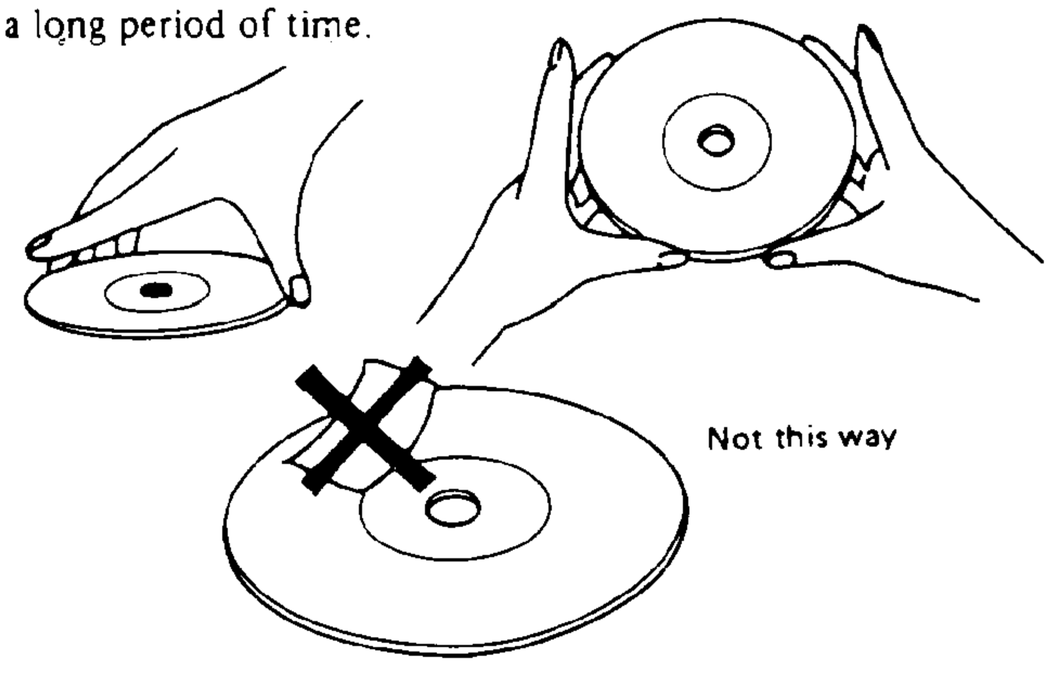
Hold Compact Discs by the edges so that you do not touch the surface of disc. Remember that the side of the disc with the "rainbow" reflection is the side containing the audio information.

Do not attach tape or paper to the label side of the disc and always be careful not to leave fingerprints on the side that is played.

- **Storing Compact Discs**

Store Compact Discs in a location protected from direct sunlight, high heat and humidity and extremely high and low temperatures. Discs should never be left in the trunk or interior of an automobile in the sun since the temperature can become very high in such a closed environment.

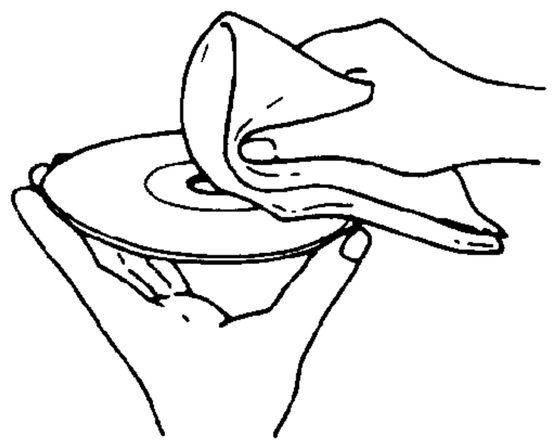
Always store Compact Discs in the holders in which they were sold. Never leave a disc in the player's disc holder for a long period of time.



- **Cleaning Compact Discs**

Before playing a disc wipe off the playing surface with a soft cloth to remove dust and other soil. Wipe the surface in straight lines from the center of the disc outward, not in a circular motion as you would with a phonograph record.

Do not use benzene, chemical cleansers or phonograph record cleaning solutions to clean Compact Discs. Also avoid static electricity prevention solutions since they can damage the surface of Compact Discs.



Problems Caused by Dew

Dew can form inside a Compact player when it is brought from a cold environment into a warm room, when a room is rapidly heated and if a player is left in a humid environment.

This dew can prevent the laser pickup from reading the data contained in the pits in the disc surface. If the player does not operate properly because of dew, remove the disc and leave the player's power switch on for about one hour to remove all moisture.

CAUTION ON REPLACEMENT OF OPTICAL PICKUP

The laser diode in the optical pickup block is so sensitive to static electricity, surge current and etc. that the components are liable to be broken down or its reliability remarkably deteriorated.

During repair, carefulley take the following precautions. (The following precautions are included in the service parts).

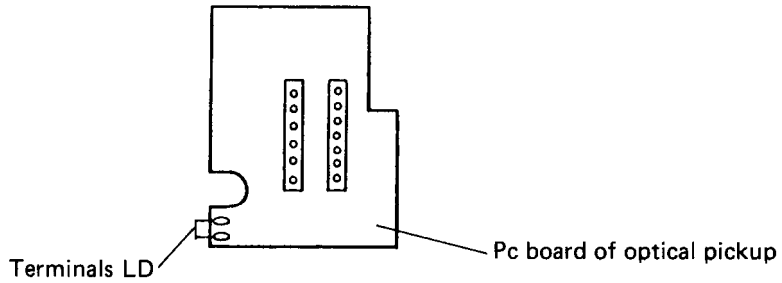
PRECAUTIONS

1. **Ground for the work-desk.**
   Place a conductive sheet such as a sheet of copper (with impedance lower than $10^6\Omega$) on the work-desk and place the set on the conductive sheet so that the chassis.
2. **Grounding for the test equipment and tools.**
   Test equipments and toolings should be grounded in order that their ground level is the same the ground of the power source.
3. **Grounding for the human body.**
   Be sure to put on a wrist-strap for grounding whose other end is grounded.
   Be particularly careful when the workers wear synthetic fiber clothes, or air is dry.
4. **Select a soldering iron that permits no leakage and have the tip of the iron well-grounded.**
5. **Do not check the laser diode terminals with the probe of a circuit tester or oscilloscope.**

Care should be taken with the optical pickup.

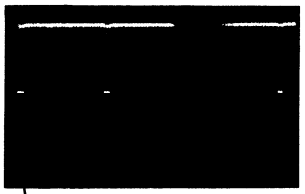
The optical pickup is sensitive to static electricity, surge currents, and other high electrical noise, and because there is the possibility of damage to performance, in the handling of the pickup, the utmost care must be taken, particularly with regard to static electricity.

1. When checking the laser terminal, avoid making connections using the probes of a tester or oscilloscope, or an ordinary power supply.
2. When replacing the optical pickup, first short the LD terminals and remove the connector. Also, when attaching the new optical pickup, after attaching the connector, unsolder the LD terminals.

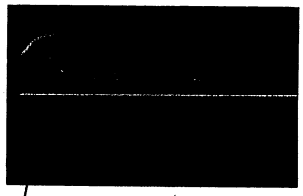


SCHEMATIC DIAGRAM

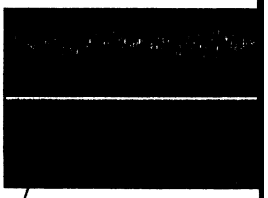
- Use the high impedance probe. (10:1)
- Play the track 2 of test disc. (YEDS-18)



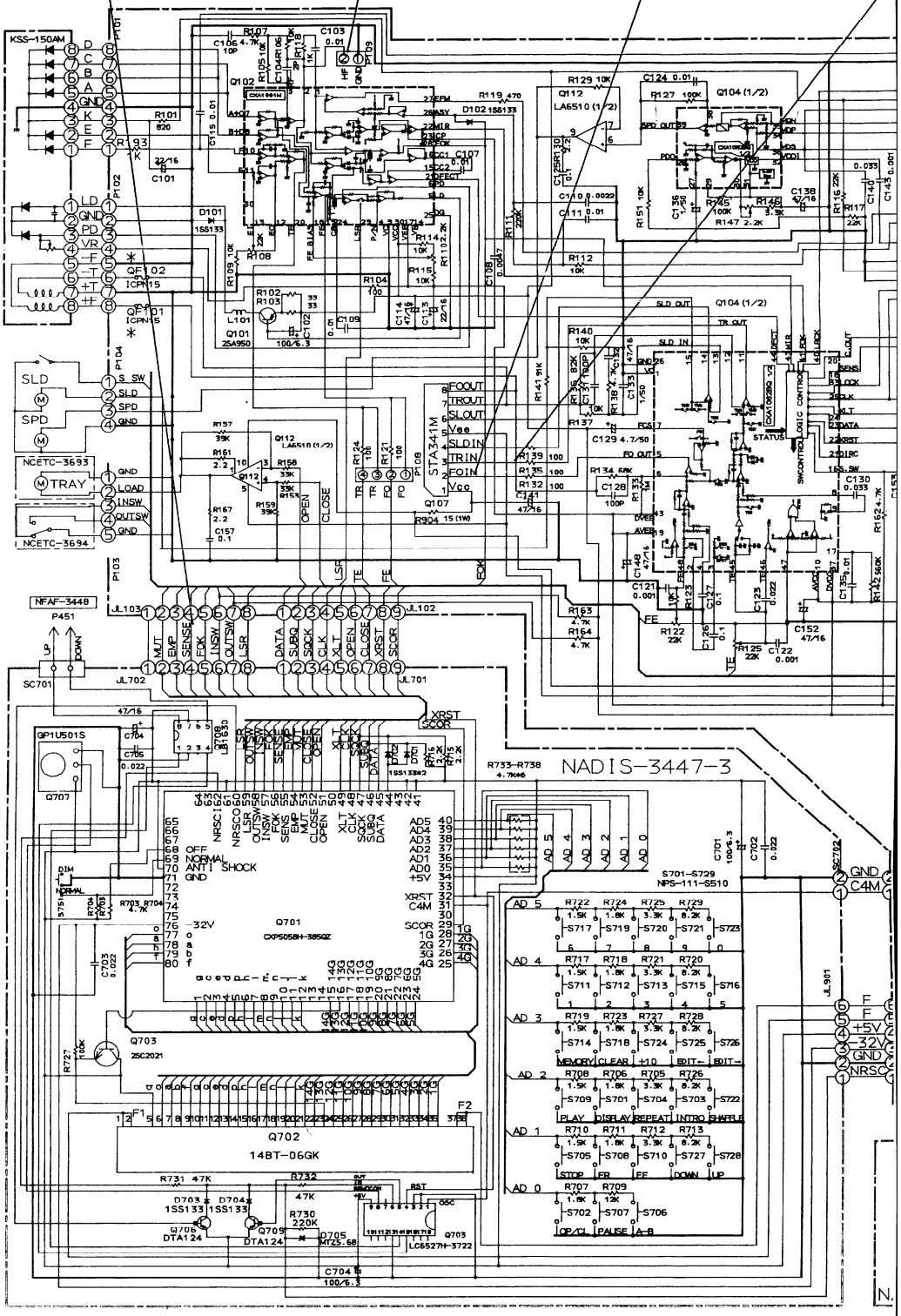
V : 0.2V/diV JL-103 #4
H : 5mS/diV SENS



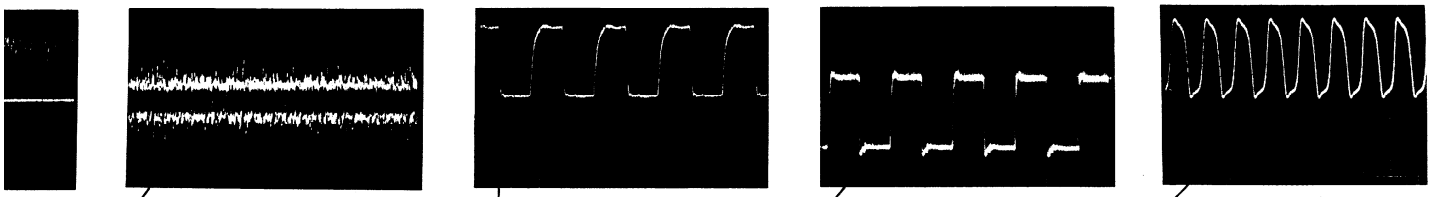
V : 50mV/diV
H : 0.5μS/diV



V : 50mV/diV
H : 0.5mS/diV



5 6 7 8

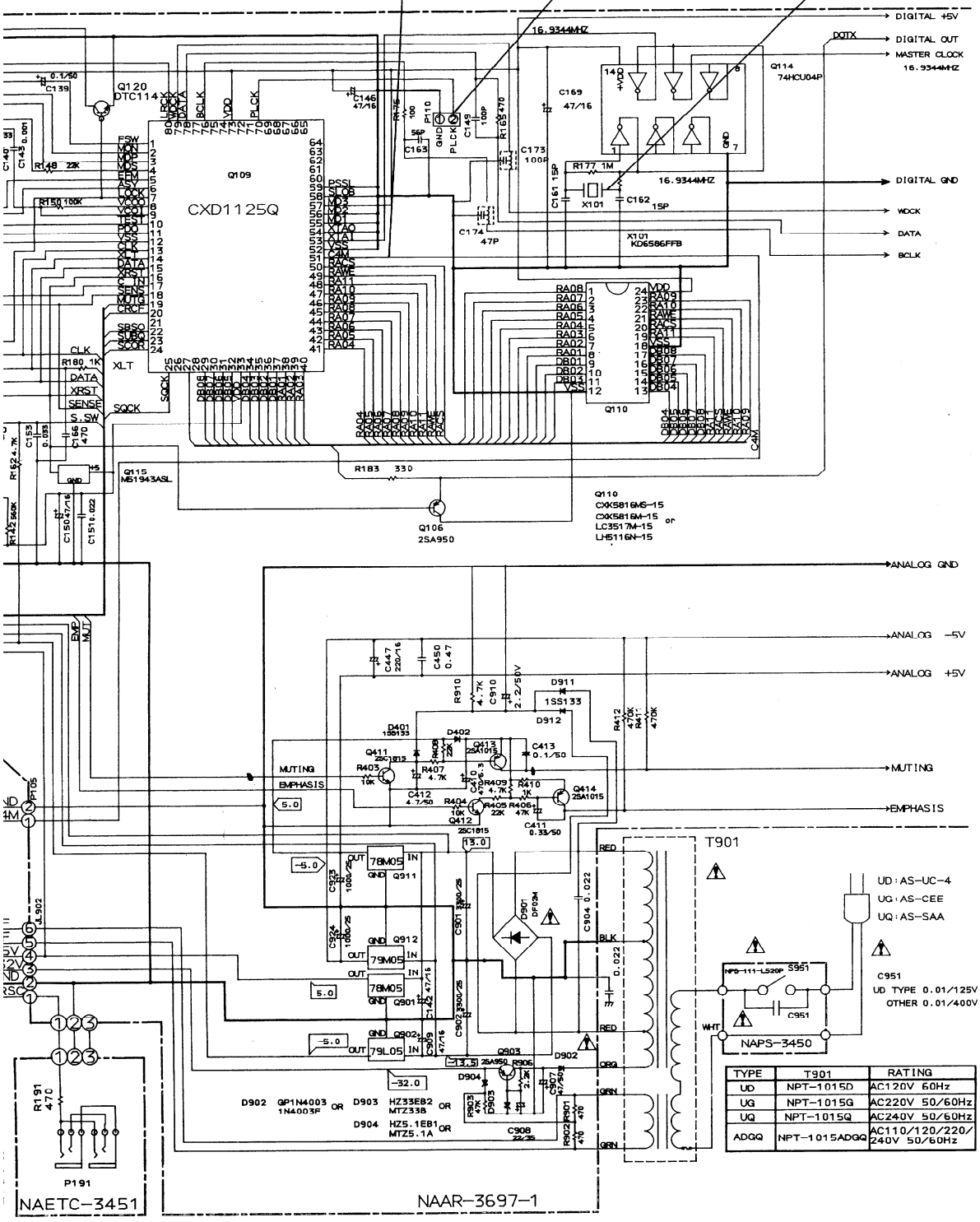


V : 0.1V/diV
H : 0.5mV/diV

V : 0.2V/diV
H : 0.1μS/diV

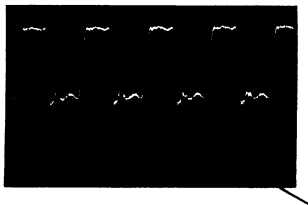
V : 0.2V/diV
H : 0.1μS/diV

V : 0.2V/diV
H : 0.05μS/diV

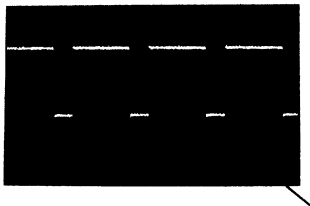


TYPE	T901	RATING
UD	NPT-1015D	AC120V 60Hz
UG	NPT-1015G	AC220V 50/60Hz
UQ	NPT-1015Q	AC240V 50/60Hz
ADQQ	NPT-1015ADQQ	AC110/120/220/240V 50/60Hz

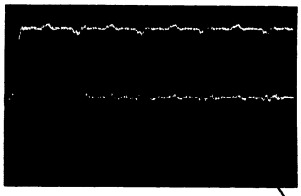
SCHEMATIC DIAGRAM



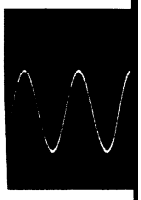
V : 0.2V/diV
H : 0.05μS/diV



V : 0.2V/diV
H : 1μS/diV

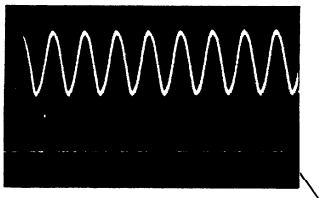


V : 0.2V/diV
H : 0.05μS/diV

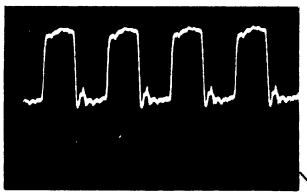


V :
H :

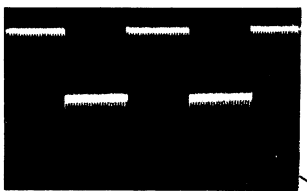
• Use the high impedance probe. (10:1)



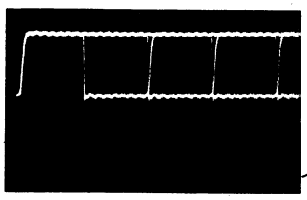
V : 0.2V/diV
H : 0.05μS/diV



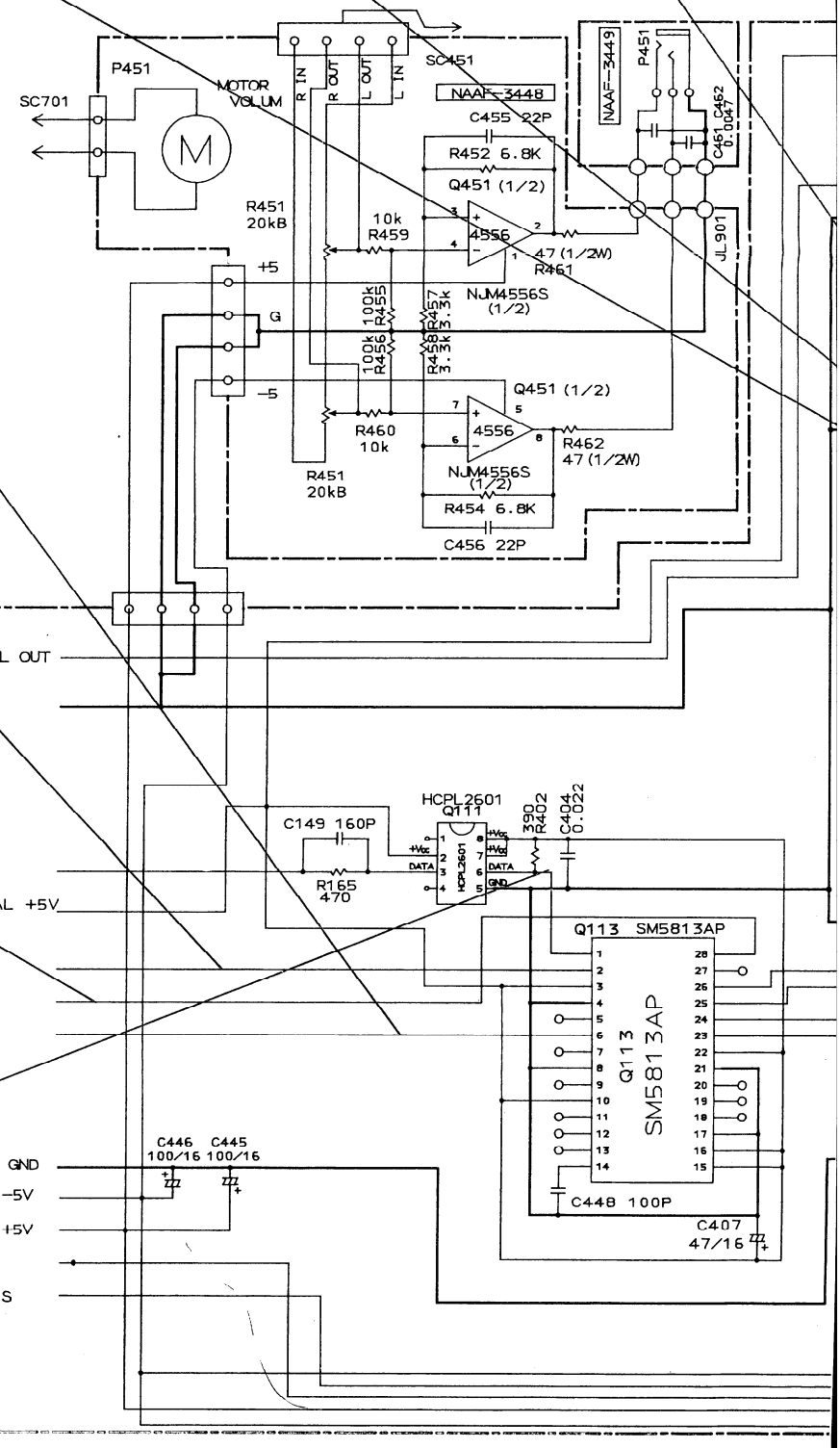
V : 0.2V/diV
H : 0.05μS/diV

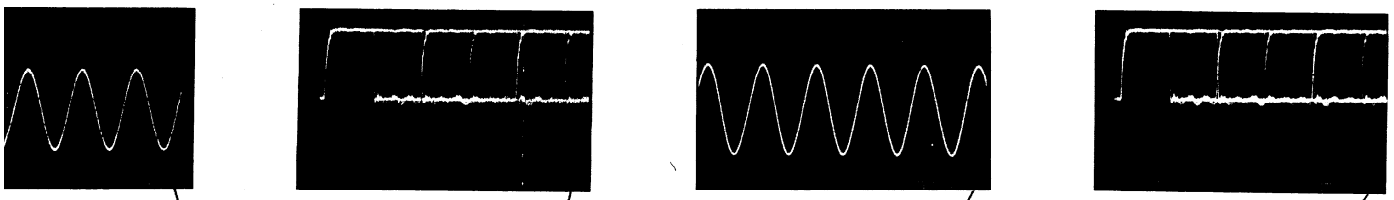


V : 0.2V/diV
H : 5μS/diV



V : 0.2V/diV
H : 0.2μS/diV





: 0.2V/diV
: 0.5mS/diV

V : 0.2V/diV
H : 0.1μS/diV

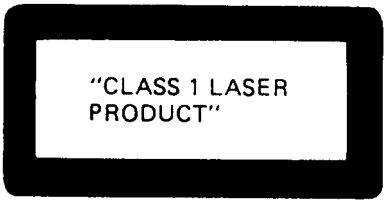
V : 50mV/diV
H : 0.5mS/diV

V : 0.2V/diV
H : 0.1μS/diV

OPTICAL OUT
COAXIAL OUT
DF-1121/T2
Q201
Q204 2SA1015
Q203 74HCU04P
+Vdd
GND
C204 0.022
C205 22/16
R202 240
C206 100P
R204 750
3.3M R423
EMP
2SK363
3.3M R471
0.039 C421
390 R421
0.0039 C425
+5V
C441 220/16
3.6k R431
R473 910
R427 2.7k
R429 3.6k
C423 1500P
C427 220P
Q403 (1/2) M5218L
2SD655 Q407
R439 270
0.0022 C429
R443 100
C457 390P
C459 560P
L-CH FIX
L-CH VAR
220k R451
C451 0.022
560k R413
R414 470k
R426 100kB
C409 220/16
AD1860N-J
Q401
C419 150P
C443 220/16
C439 220/16
10k R435
C433
R437 10k
22k R433
Q403 (1/2) M5218L
C429 C431
10k R441
EMP
3.3M R424
Q406 2SK363
220k R416
C452 0.022
560k R414
R426 100kB
R418 470k
C410 220/16
R472 3.3M
C422 0.039
R422 390
0.0039 C426
C440 220/16
R442 10k
3.6k R432
R474 910
R428 2.7k
R430 3.6k
C424 1500P
C428 220P
Q404 (1/2) M5218L
270 R440
R444 100
C456 390P
C458 560P
R-CH FIX
R-CH VAR
AD1860N-J
Q402
C420 150P
C444 220/16
C442 220/15
10k R436
C434
R438 10k
0.0022 C438
Q408 2SD655
22k R434
Q404 (1/2) M5218L
C430 C432
MUTE
0.22
C429-C434 22M/16
R IN
R OUT
L OUT
L IN
R448 100
R447 100
P403
6 5 4 3 2 1
NAAF-3448
SC451

- ALL RESISTORS ARE IN OHMS 1/4WATT UNLESS OTHERWISE NOTED.
- ALL CAPACITORS ARE IN μF/50wV UNLESS OTHERWISE NOTED.
- ELECTROLYTIC CAPACITORS (+) ARE IN μF/wV.
- VOLTAGE (MEASURED WITH V.T.V.M) MEASURED WITH □V IS DC VOLTAGE. (NO INPUT)
- THE CONPONENTS IDENTIFIER ⚠ ARE CRITICAL FOR SAFETY. REPLACE ONLY WITH PART NUMBER SPECIFIED.
- CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.

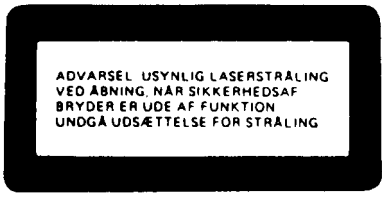
ADVARSEL



Denne mærkning er anbragt på apparatets højre side og indikerer, at apparatet arbejder med laserstråler af klasse 1, hvilket betyder, at der anvendes laserstråler af svageste klasse, og at man ikke på apparatets yderside kan blive udsat for utilladelig kraftig stråling.

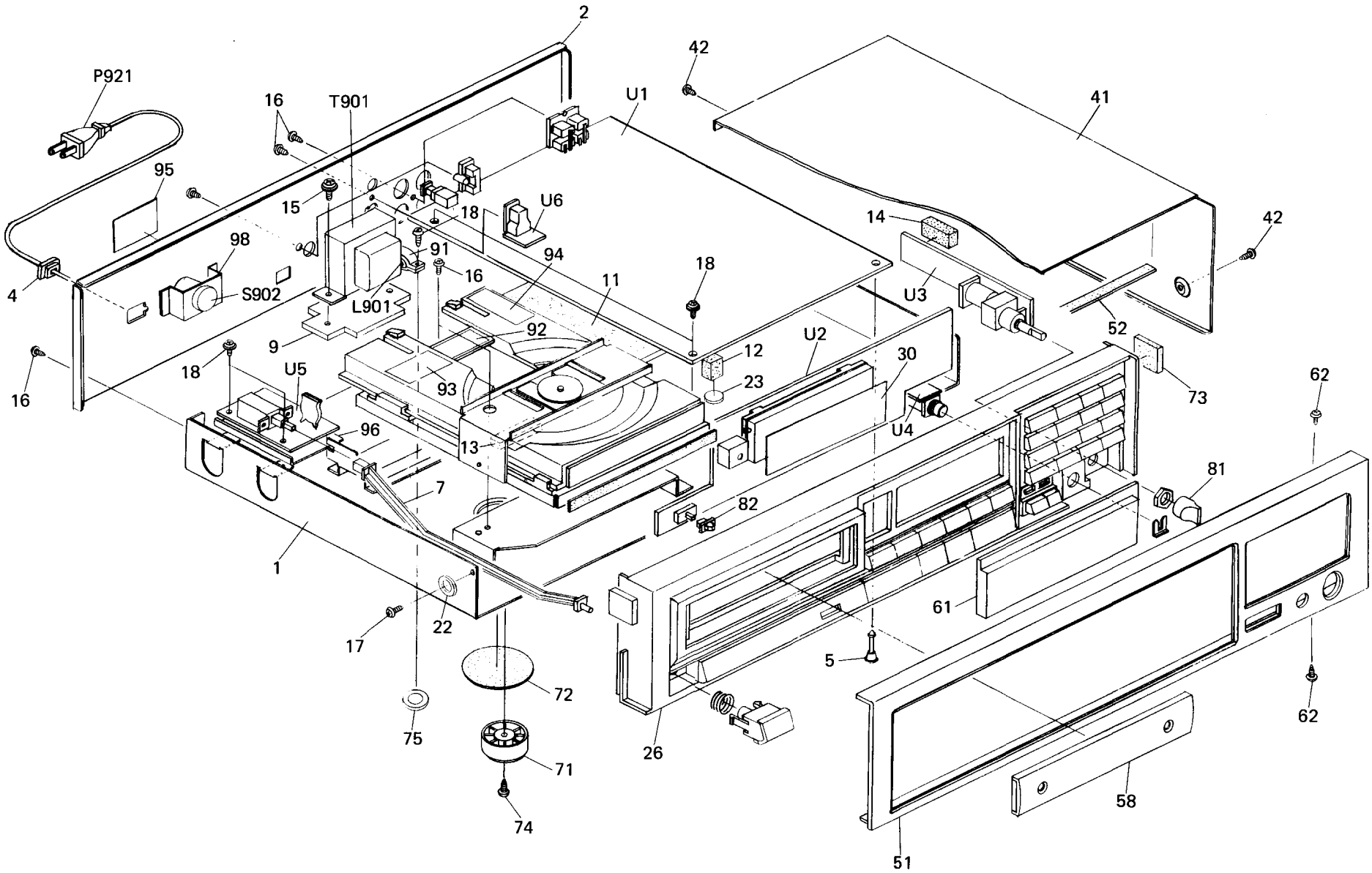
APPARATET BØR KUN ÅBNES AF FAGFOLK MED SÆRLIGT KENDSKAB TIL APPARATER MED LASERSTRÅLER!

Indvendigt i apparatet er anbragt den her gengivne advarselsmærkning, som advarer imod at foretage sådanne indgreb i apparatet, at man kan komme til at udsætte sig for laserstråling.



VAROITUS! Laite sisältää laserdiodin, joka lähettää (näkymätöntä) silmille vaarallista lasersäteilyä.

CHASSIS-EXPLODED VIEW



PARTS LIST

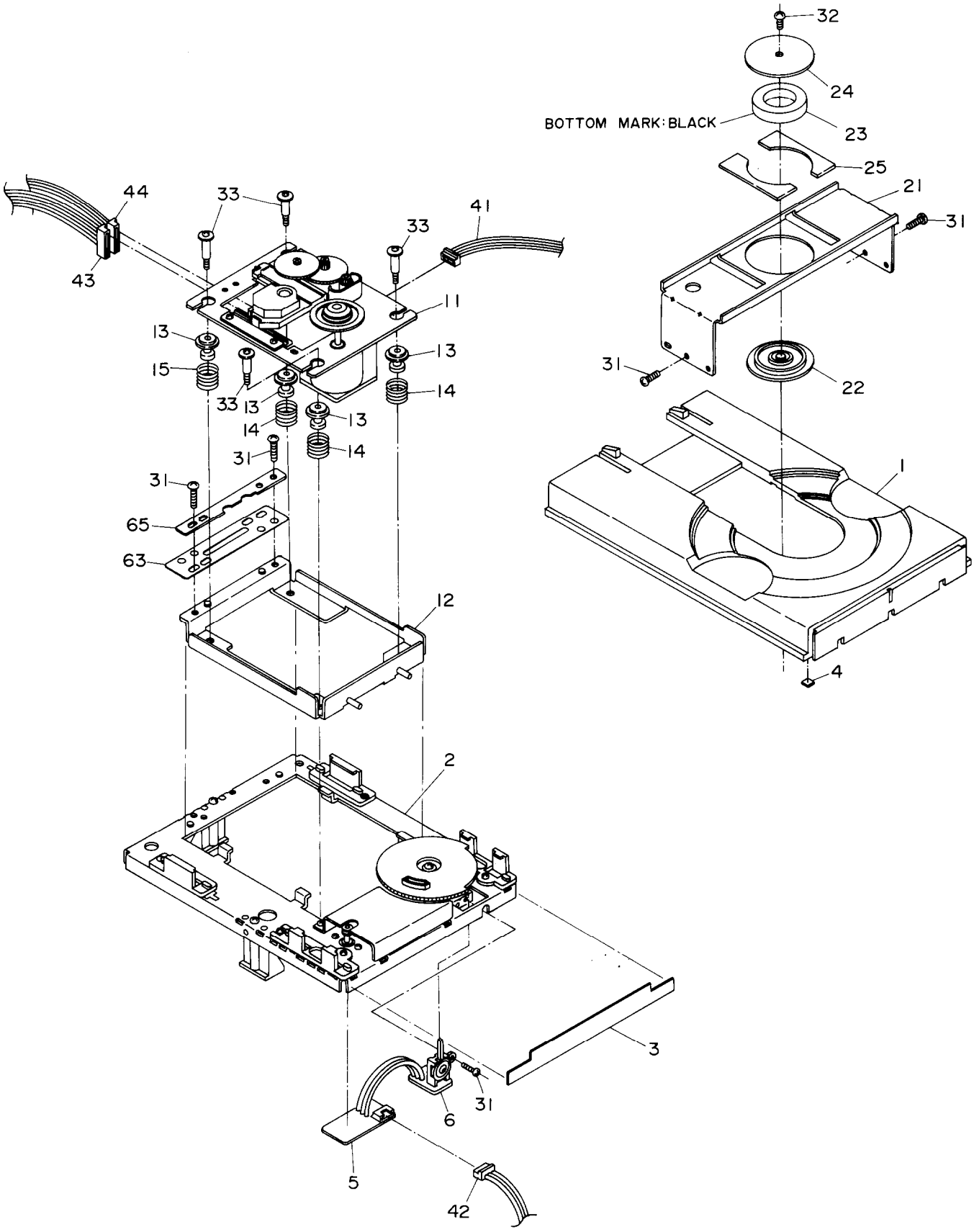
REF.NO.	PART NO.	DESCRIPTION
1	27100200A	Chassis
2	27121302	Back panel〈D〉
	27121303	Back panel〈G〉
	27121304	Back panel〈W〉
	27121308	Back panel〈Q〉
4	27300750	⚠Bushing (Strainrelief)
5	27190511	KGLS-16R, Holder
7	27273112	Joint, power
9	27270214A	Spacer
11	28141009	t1.5×195×125, Cushion
12	28140946	Cushion
13	28141008	t1.5×60×15, Cushion
14	28141007	t8×20×40, Cushion
15	830440109	4TTC+10C (BC) , Self-tapping screw
16	834430088	3TTS+8B (BC) , Self-tapping screw
17	833430080	3TTP+8P (BC) , Self-tapping screw
18	831130088	3TTW+8B, Self-tapping screw
22	27270212	Spacer
23	27270305	Spacer
26	27110530B	Front bracket
30	28133216	Back plate
41	28184429	Top cover
42	834430088	3TTS+8B (BC) , Self-tapping screw
51	1H093121	Front panel ass'y
52	28140836	t0.5×10×350, Cushion
58	27211142	Tray panel
61	28191534	Clear plate
62	833430080	3TTP+8P (BC) , Self-tapping screw
71	27175153-1	Leg
72	27270255	Spacer
73	28140928	t4×25×25, Cushion
74	834430088	3TTS+8B (BC) , Self-tapping screw
75	27175011C	Leg
81	28323571	Knob, level
82	28323152-1	Knob, mode
91	260223	NK-16N, Clamp〈D〉
	260221	NK-10N, Clamp〈G/Q/W〉
92	29360807	Label, danger
93	29361218	Label, laser〈G/W/Q〉
94	29360811A	Label〈G〉
95	29360687	Label, class 1〈G/W/Q〉
96	28175158A	Insulated plate〈G/W/Q〉
98	27141090A	Bracket, voltage selector switch〈W〉
L901	230908	⚠TR-23-11-14, Core〈D〉
	230907	⚠TR-16-8-16, Core〈G/W/Q〉

REF.NO.	PART NO.	DESCRIPTION
P921	253112A	⚠AS-UC-4#18, Power supply cord〈D〉
	253148 or 253150	⚠AS-CEE 250V 2.5A, Power supply cord〈G/W〉
	253118	⚠AS-SSA, Power supply cord〈A〉
	728328	⚠Power supply cord〈B〉
S902	25065168	⚠HXW0131-01-060, Voltage selector switch〈W〉
T901	2300384B	⚠NPT-1015D, Power transformer〈D〉
	2300385B	⚠NPT-1015G, Power transformer〈G〉
	2300387A	⚠NPT-1015ADGQ, Power transformer〈W〉
	2300386B	⚠NPT-1015Q, Power transformer〈Q〉
U1	1H093597-1	NAAR-3697-1, Main circuit pc board ass'y〈D/W〉
	1H093597-1A	NAAR-3697-1A, Main circuit pc board ass'y〈G/Q〉
U2	1H093547-3	NADIS-3447-3, Display circuit pc board ass'y
U3	1H093548-3	NAAF-3448-3, Headphone amplifier pc board ass'y
U4	1H093549-3	NAAF-3449-3, Headphone terminal pc board ass'y
U5	1H093550-3	NAPS-3450-3, Power switch pc board ass'y
U6	1H093551-3	NAETC-3451-3, Terminal pc board ass'y
	260208	Binder

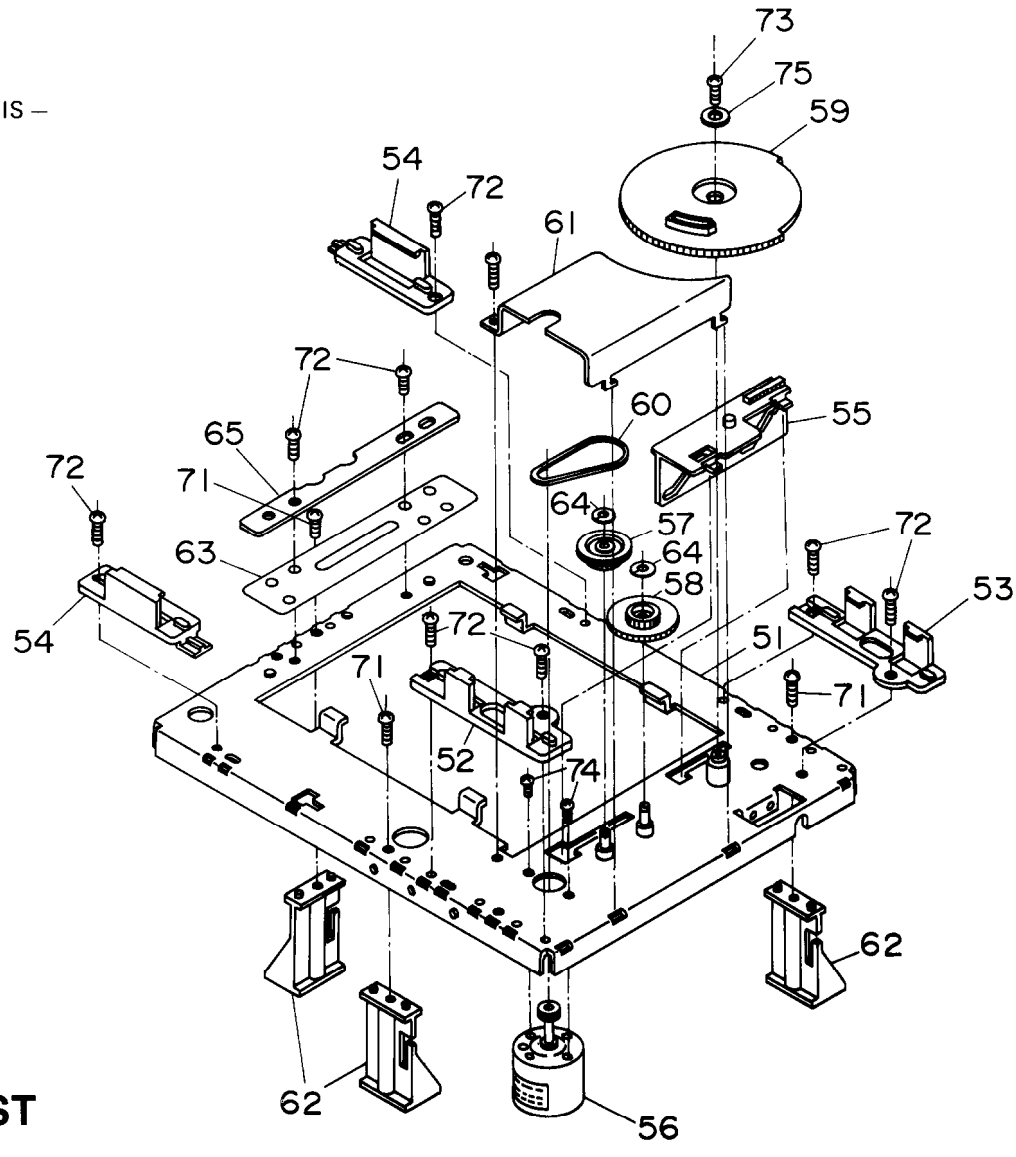
NOTE: 〈D〉:Only 120V model
〈G〉:Only 220V model
〈Q〉:Only 240V model
〈W〉:Only Wolrdwide model
〈A〉:Only Australian model
〈B〉:Only U.K. model

NOTE: THE COMPONENTS IDENTIFIED BY MARK ⚠ ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.

MECHANISM EXPLODED VIEW



– MAIN CHASSIS –

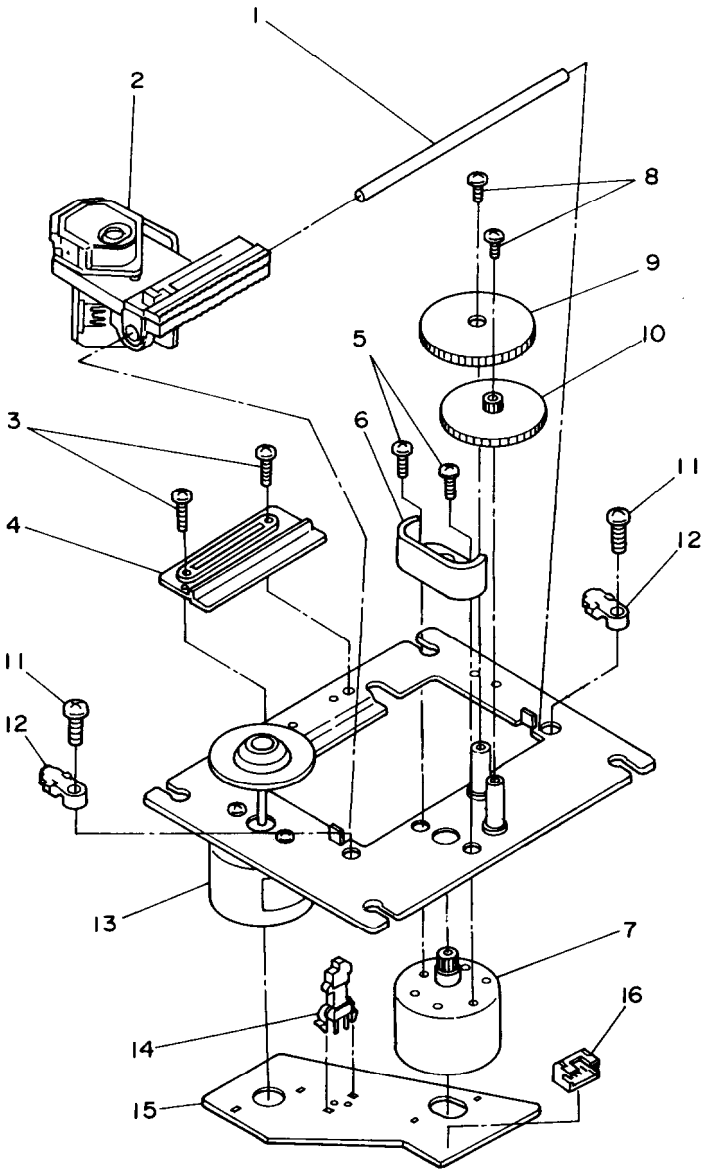


PARTS LIST

REF.NO.	PART NO.	DESCRIPTION
1	27301236A	Disc tray
2	27100201A	Chassis ass'y, main
3	27301289	Plate, decoration
4	28141020	Cushion
5	1H093593-1	NAETC-3693-1, Tray motor pc board ass'y
	25055369	NPLG-5P352, Plug
6	1H093594-1	NAETC-3694-1, Tray switch pc board ass'y
	25065375	NMS-1219, Microswitch
11	242369	Pickup drive unit
12	27100197	Chassis, sub
13	27301232	Cushion rubber
14	27180437A	Spring, front
15	27180438A	Spring, rear
21	27301240	Arm
22	27301241	Cap CH
23	28181019A	Magnet CH
24	27301214-1	York CH
25	28140993	Cushion CH
31	833425089	2.5TTP+8C (BC) , Self-tapping screw
32	833426050	2.6TTP+5P (BC) , Self-tapping screw
33	801428	Special screw
41	2002320825	NSAS-8P0030, Socket
42	2002391025	NSAS-10P0082, Socket
43	2000951	NSAS-8P903, Socket
44	2000952	NSAS-8P904, Socket
63	27180436	Plate spring
65	27141375	Bracket

REF.NO.	PART NO.	DESCRIPTION
51	27100198	Chassis, main
52	27301237A	Tray guide FL
53	27301238A	Tray guide FR
54	27301242A	Tray guide R
55	27301239	Cam plate
56	24502255	Tray motor ass'y
57	27301233	Pulley gear
58	27301234	Gear
59	27301235A	Cam gear
60	27301079	Rubber belt
61	27301243	Cover
62	27301244	Leg
63	27180436	Plate spring
64	27270292	Spacer
65	27141375	Bracket
71	838430088	3TTB+8B (BC) , Self-tapping screw
72	833425089	2.5TTP+8C (BC) , Self-tapping screw
73	82143006	3P+6FN (BC) , Pan head screw
74	801430	2P+2.5F, Special screw
75	87643010	W3×10F (BC) , Flat washer

– PICKUP DRIVE UNIT –



PARTS LIST

REF.NO.	PART NO.	DESCRIPTION
1	24506900	Shaft
2	24110005	KSS-150A, Optical pickup CF028
3	801425	S2×5, Special screw
4	24506901	Holder
5	82112004	+P2×4, Pan head screw
6	24506902	Cover, gear
7	24502251	Motor ass'y, slide
8	801426	M1.7×3, Special screw
9	24506903	Wheel A
10	24506904	Wheel B
11	801427	+STP2.6×8, Special screw
12	24506905	Clamp, shaft
13	24502253	Spindle motor ass'y (Including the chassis)
14	25065377	NLF-12018, Microswitch
15	24505270	Pc board
16	25050396	NSCT-4P223, Socket

DISASSEMBLING/ATTACHMENT PROCEDURES

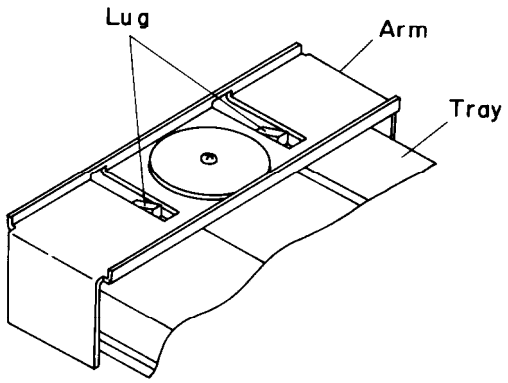
1.Removement of the disc tray

Procedures 1

1) Press the POWER switch to turn on the power.
2) Press the OPEN/CLOSE button to open the disc tray.
3) Press the POWER switch to turn off.
4) Push the disc tray slowly with the hand to close the disc tray.
(The disc tray is free.)
5) Pull out the disc tray to the front side with the hand.
6) Press the lug of disc tray to remove the disc tray.

Procedures 2

1) Push the cam plate slowly with the screw driver (−) from the hole of left side of chassis.
2) Pull out the disc tray to the front side with the hand.
3) Press the lug of disc tray to remove the disc tray.

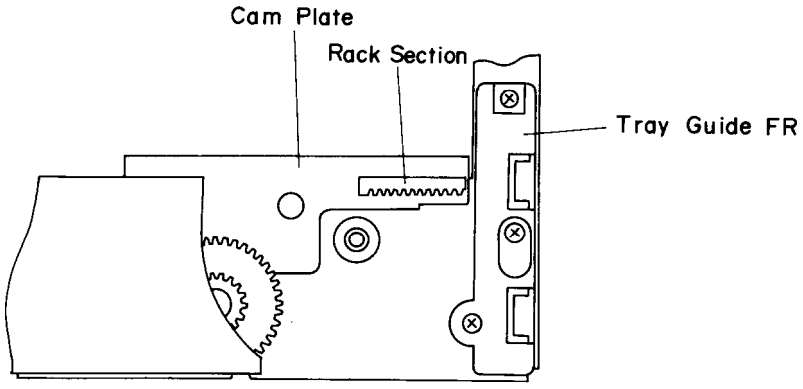


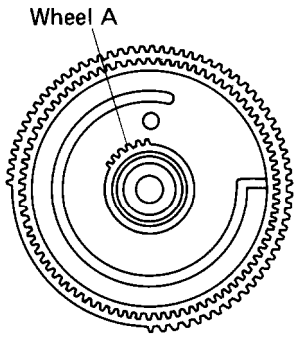
2.Attachment of the disc tray

1) Turn the cam gear to fully clockwise direction.
2) Insert the disc tray.
3) Turn the power on to lock the disc tray.

3.Attachment of the cam gear

1) Set the cam plate to the right side as shown below.
2) Attach the cam gear so that the rack of cam palte and the wheel A of cam gear are not engaged.





Bottom view of cam gear

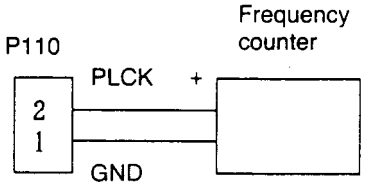
ADJUSTMENT PROCEDURES

Instruments required

Dual trace oscilloscope, Frequency counter, AF oscillator, Test disc (SONY YEDS-18), AC voltmeter, Jitter meter, and Socket P4(Part no. 25050138)

1. VCO frequency adjustment

Connect the frequency counter to terminal P110.
Turn the power switch to ON.(No load the disc.)
Adjust R147 until the frequency counter reading becomes 4322 ±5kHz.
After adjustment, disconnect the frequency counter.



2. Focus offset adjustment

Load the test disc YEDS-18 on the tray and play the track 2.
Connect the oscilloscope or jitter meter to terminal P109.
(Oscilloscope)
Adjust R110 until a clear trace of waveform pattern as shown photo 1 appear on the oscilloscope.
When the amount of jitter is broad, set R110 to mechanical center.
(Jitter meter)
Adjust R110 until the jitter meter reading becomes minimum.(Less than 10ns.)
After adjustment, disconnect the oscilloscope or jittter meter.

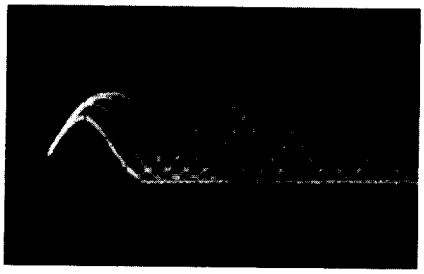
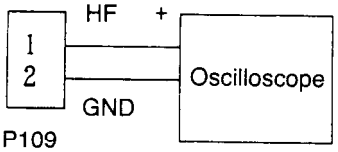
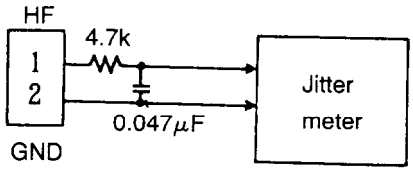


Photo 1



Oscilloscope range
Vertical : 0.5V/div.
Holizontal : 0.2 μs/div.
AC



3. Tracking offset adjustment

Load the test disc YEDS-18 on the tray and play the track 2.
Turn R125 to minimum position.(Counter clockwise)
Connect the oscilloscope between pin 3 (TR) of P108 and pin 2 (GND) of P109.
Adjust R108 until the center of tracking error signal on the oscilloscope becomes GND level.
Turn R125 to the mechanical center.
After adjustment, disconnect the oscilloscope.

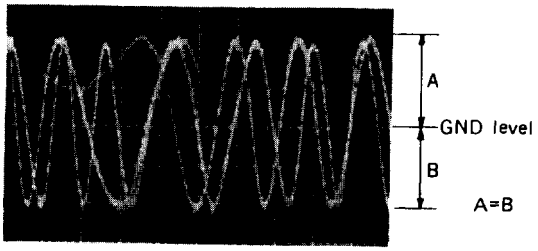
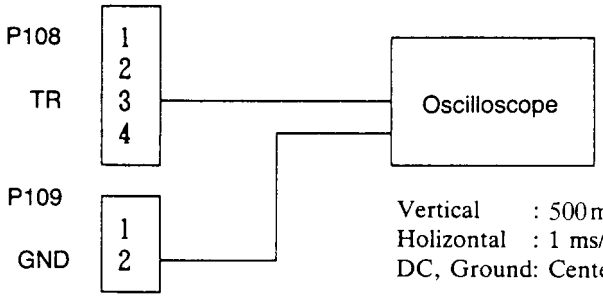


Photo 2



Vertical : 500mV/div.
Holizontal : 1 ms/div.
DC, Ground: Center

4. Focus gain adjustment

Set the output of AF oscillator to 800Hz, 1~1.5Vp-p.
Play the track 2 of test disc.
Connect the oscilloscope and the AF oscillator as shown below.

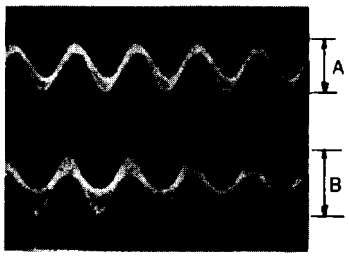
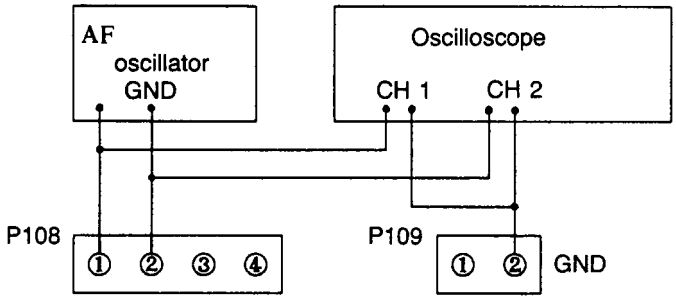


Photo 3



Vertical : 0.2V/div.
Holizontal: 0.5 ms/div.

Adjust R122 until 800Hz components of channels 1 and 2 on oscilloscope become same level.
After adjustment, disconnect the AF oscillator and the oscilloscope.

5. Tracking gain adjustment

Set the output of AF oscillator to 1.2kHz, 1~1.5Vp-p.
Play the track 2 of test disc.
Connect the oscilloscope and the AF oscillator as shown below.

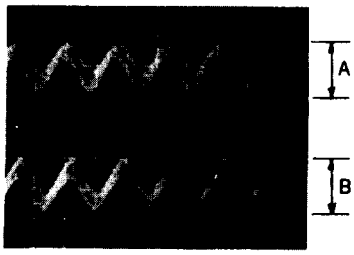
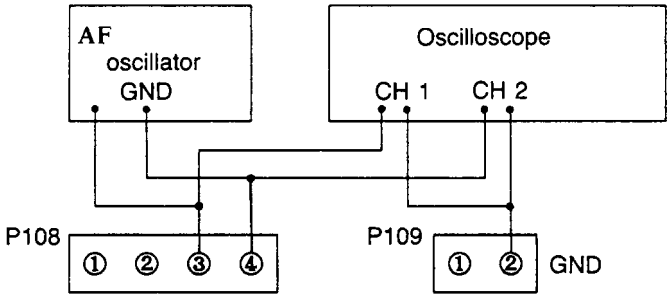


Photo 4



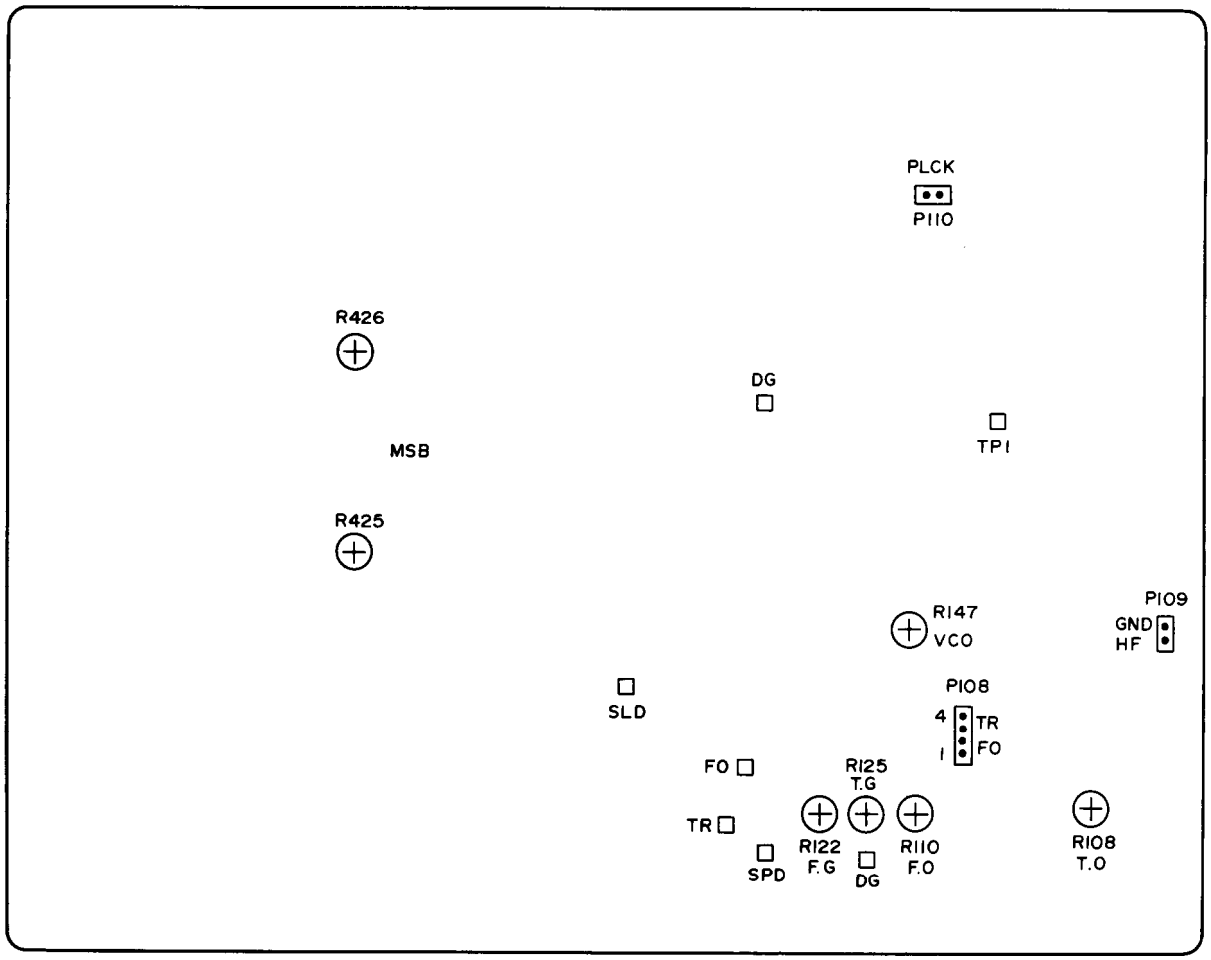
Vertical : 0.2V/div.
Holizontal: 0.5 ms/div.

Adjust R125 until 1.2kHz components of channels 1 and 2 on oscilloscope become same level.
After adjustment, disconnect the AF oscillator and the oscilloscope.

After adjustment, confirm that the center of tracking error signal becomes GND level.

6. Audio circuit adjustment

Connect the AC voltmeter to output terminal of left channel (right channel).
Load the test disc and play the track 2.
Next, play the track 17.
Adjust R425 (R426) so that the output discrepancy between track 2 and track 17 is 60±0.25dB.



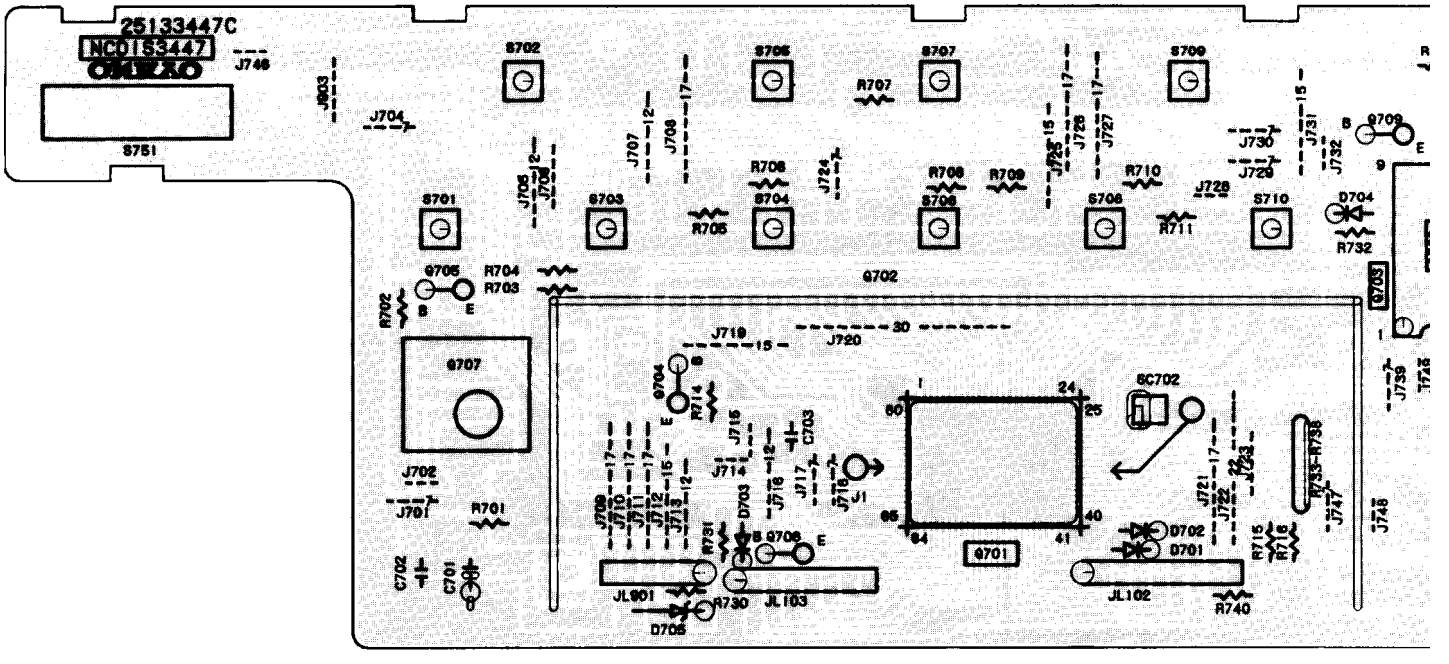
Adjustment point

PRINTED CIRCUIT BOARD – PARTS LIST

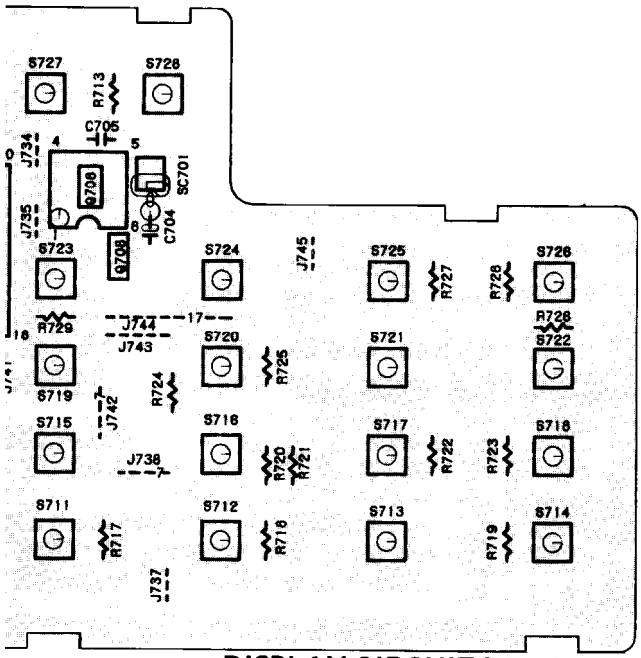
MAIN CIRCUIT PC BOARD (NAAR-3697-1/1A)

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q102	22240029	CXA1081M
Q104	22240223	CXA1082BQ
Q107	22240168	STA341M-L
Q109	22240130	CXD1125Q
Q110	222990,	CXK5816M-15,
	22240142,	CXK5816MS-15,
	22240032,	LC3517AM-15,
	22240203,	LC5116N-15,
	22240233 or	LC3517BM-15 or
	222882	HM6116FP-4
Q111	226027	HCPL-2601
Q112	22240034	LA6510
Q113	22240288	SM5813AP
Q114, Q203	222755	74HCU04P
Q115	22240018	M51943ASL
Q401, Q402	22240289	AD1860N-J
Q403, Q404	222652	M5218L
Q901	222780052NEC	78M05
Q902	222790053	79L05
Q911	222780055MIT	M5F78M05L
Q912	222790055MIT	M5F79M05L
	Transistors	
Q101, Q903	2211503 or	2SA950-0 or
	2211504	2SA950-Y
Q106, Q204	2211454 or	2SA1015-Y or
	2211455	2SA1015-GR
Q120	221281	DTC114YS
Q405, Q406	2212524 or	2SK363GL or
	2212525	2SK363BL
Q407, Q408	2211705 or	2SD655-E or
	2211706	2SD655-F
Q411, Q412	2211183,	2SC1740-R,
	2211254 or	2SC1815-Y or
	2211255	2SC1815-GR
Q413, Q414	2213074,	2SA933-R,
	2211454 or	2SA1015-Y or
	2211455	2SA1015-GR
	Photo coupler	
Q201	24120028	DF-1121/T2
	Diodes	
D101, D102	223163	1SS133
D401, D402	223163	1SS133
D901	223892	DF02M
D902	223880 or	GP101N4003 or
	223896	1N4003F
D903	224653302 or	HZ33EB2 or
	224453302	MTZ33B
D904	224650511 or	HZ5.1EB1 or
	224450511	MTZ5.1A
D911, D912	223163	1SS133
	Crystal	
X102	3010112	KD6586FFB
	Coils	
L101	231023	NCH-1062
L201	232143	NSRF-2047
	Filters	
C173	3030002	DSS306-55B101M
C174	3030001	DSS306-55B470M
	Capacitors	
C101, C113	354742209	22 μF, 16V, Elect.
C102	354721019	100 μF, 6.3V, Elect.
C103, C107	371121034	0.01 μF ± 5%, 50V, Mylar
C108	371124724	4700pF ± 5%, 50V, Mylar
C109, C111	371121034	0.01 μF ± 5%, 50V, Mylar

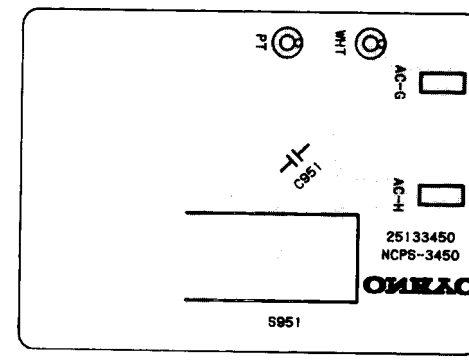
PRINTED CIRCUIT BOARD VIEW FROM BOTTOM SIDE



CIRCUIT NO.	PART NO.	DESCRIPTION
C110, C121	371122224	2200pF±5%, 50V, Mylar
C114	354722219	220μF, 6.3V, Elect.
C115	371121034	0.01μF±5%, 50V, Mylar
C122	371121024	1000pF±5%, 50V, Mylar
C123	371122234	0.022μF±5%, 50V, Mylar
C125-C127	371121044	0.1μF±5%, 50V, Mylar
C129	354780479	4.7μF, 50V, Elect.
C130	371123334	0.033μF±5%, 50V, Mylar
C132, C138	354744709	47μF, 16V, Elect.
C133, C136	354780109	1μF, 50V, Elect.
C135	371121034	0.01μF±5%, 50V, Mylar
C139	354781099	0.1μF, 50V, Elect.
C140	371123334	0.033μF±5%, 50V, Mylar
C141, C142	354744709	47μF, 16V, Elect.
C146, C148	354744709	47μF, 16V, Elect.
C152	354782219	220μF, 50V, Elect.
C153	371123334	0.033μF±5%, 50V, Mylar
C157	371121044	0.1μF±5%, 50V, Mylar
C158, C159	354744709	47μF, 16V, Elect.
C202	354744709	47μF, 16V, Elect.
C205	352942206	22μF, 16V, Non-polar elect.
C403, C407	354744709	47μF, 16V, Elect.
C408, C409	354744719	470μF, 16V, Elect.
C410	354724719	470μF, 6.3V, Elect.
C411	354783399	0.33μF, 50V, Elect.
C412	354780479	4.7μF, 50V, Elect.
C413	354782299	0.22μF, 50V, Elect.
C419, C420	372121014	100pF±5%, 50V, Styrol
C421, C422	371123934	0.039μF±5%, 50V, Mylar
C423, C424	372121524	1500pF±5%, 50V, Styrol
C425, C426	379123924	3900pF±5%, 50V, Plastic (DEW)
C427, C428	372122214	220pF±5%, 50V, Styrol
C429-C432	391242207	22μF, 16V, Elect. (MUSE)
C435, C436	391242207	22μF, 16V, Elect. (MUSE)
C437, C438	371122224	2200pF±5%, 50V, Mylar
C439-C444	354782219	220μF, 50V, Elect.
C445, C446	354744709	47μF, 16V, Elect.
C447	391242217	220μF, 16V, Elect. (MUSE)
C450	374724744	0.47μF±5%, 50V, IF
C451, C452	374722234	0.022μF±5%, 50V, IF
C453	374722244	0.22μF±5%, 50V, IF
C456, C457	373305614	560pF±5%, 125V, PP
C458, C459	372123914	390pF±5%, 50V, Styrol
C901, C902	354753329	3300μF, 25V, Elect.
C904	374722234	0.022μF±5%, 50V, Plastic (TF)
C907	354784709	47μF, 50V, Elect.
C908	354762209	22μF, 35V, Elect.
C909	354744709	47μF, 16V, Elect.
C910	354780229	2.2μF, 50V, Elect.
C923, C924	354751029	1000μF, 25V, Elect.
	Resistors	
R108	5210066	N06HR22KBD, Semi-fixed
R110	5210060	N06HR2.2KBD, Semi-fixed
R122, R125	5210066	N06HR22KBD, Semi-fixed
R147	5210058	N06HR1KBD, Semi-fixed
R425, R426	5210070	N06HR100KBD, Semi-fixed
R904	441621504	15ohm, 1W, Metal oxide film
	Plugs	
P101	25055373	NPLG-9P356
P102	25055152	NPLG-8P136
P103	25055149	NPLG-5P133
P104	25055148	NPLG-4P132
P105	25055146	NPLG-2P130
P108	25055045	NPLG-4P33
P109, P110	25055038	NPLG-2P29
P403	25055150	NPLG-6P134
	Jacks	
P114	25045220	NPJ-1PDOR-97
P401	25045267	NPJ-4PDBL-134
	Sockets	
JL102	25050273	NSCT-9P101
JL103	25050272	NSCT-8P100
JL901	25050270	NSCT-6P98
JL902	25050268	NSCT-4P96
J8	2000957	NSAS-2P909
J14	2009990067	NSAS-2P0103
	Fuses	
QF101, QF102	252112	⚠ICPN15〈G〉
	Radiator	
	27160211-1	
	Screw	
	82143006	3P+6FN (BC), Radiator



DISPLAY CIRCUIT PC BOARD



POWER SWITCH PC BOARD

DISPLAY CIRCUIT PC BOARD (NADIS-3447-3)

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q701	22240292	CXP5058H-538QZ
Q703	22240173	LC6527H-3722
Q708	222963	LB1630
	Remocon sensor	
Q707	24130003	GP1U50XS
	FLtube	
Q702	212046	14BT06GK
	Transistors	
Q704	2212132 or	2SC2021-R or
	2212133	2SC2021-S
Q706, Q709	2212600	DTA124ES
	Diodes	
D701-D704	223163	1SS133
D705	224650562 or	HZ5.6EB2 or
	2243152	MTZ5.6B
	Capacitors	
C701	354721019	100μF, 6.3V, Elect.
C704	355744709	47μF, 16V, Elect.
	Resistors	
R733-R738	49163472406	4.7k×6, 1/10W, Network
	Switches	
S701-S728	25035548	NPS-111-S510, Push
S751	25065384	NSS-23146, Slide
	Sockets	
SC701	2000893	NSAS4P-849
SC702	2000732	NSAS4P-688
	Holder	
	27190567B	Display

HEADPHONE AMPLIFER PC BOARD (NAAF-3448-3)

CIRCUIT NO.	PART NO.	DESCRIPTION
Q451	222887	NJM4556S, IC
C451, C452	354744709	47μF, 16V, Elect. capacitors
R451	5104247	N16RGM20KB25F, Variable resistor
R461, R462	442524704	47ohm, 1/2W, Metal oxide film resistors
P451	25055146	NPLG-2P130, Plug
SC451	2000956	NSAS-10P-908, Socket

HEADPHONE TERMINAL PC BOARD (NAAF-3449-3)

CIRCUIT NO.	PART NO.	DESCRIPTION
P451	25045139	HLJ-0540-01-010, Headphone jack

POWER SWITCH PC BOARD (NAPS-3450-3)

CIRCUIT NO.	PART NO.	DESCRIPTION
C951	3500065A	⚠ DE7150FZ103PCSA, Capacitor IS
P951	25035558	⚠ NPS-111-L520P, Power switch
	25060092	NTM-1S33, Terminal
	27300601	⚠ Cover for C951

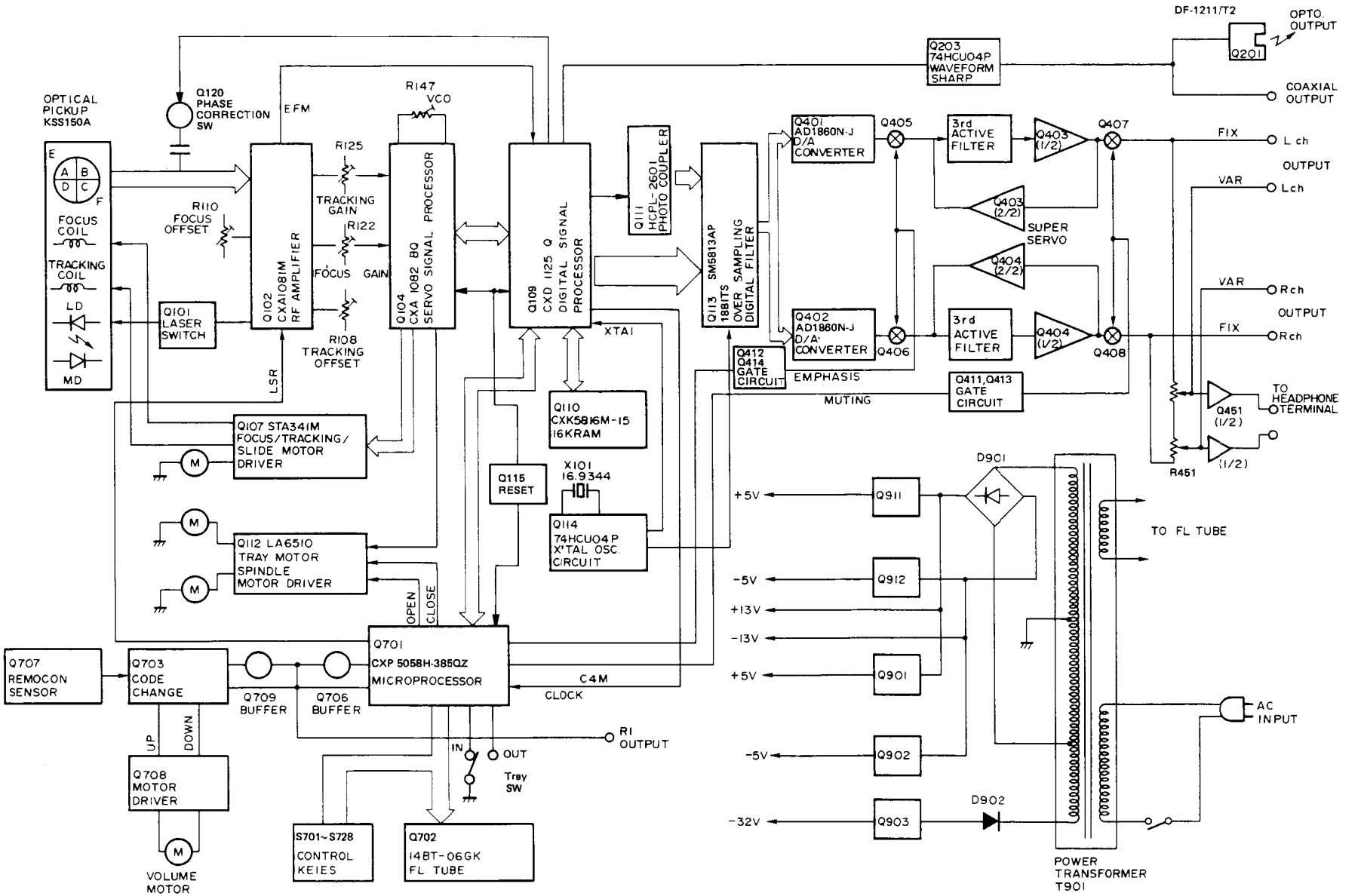
TERMINAL PC BOARD (NAETC-3451-3)

CIRCUIT NO.	PART NO.	DESCRIPTION
P191	25045172	HSJ1003-01-020, Terminal RI
JL101	25050267	NSCT-3P95, Socket

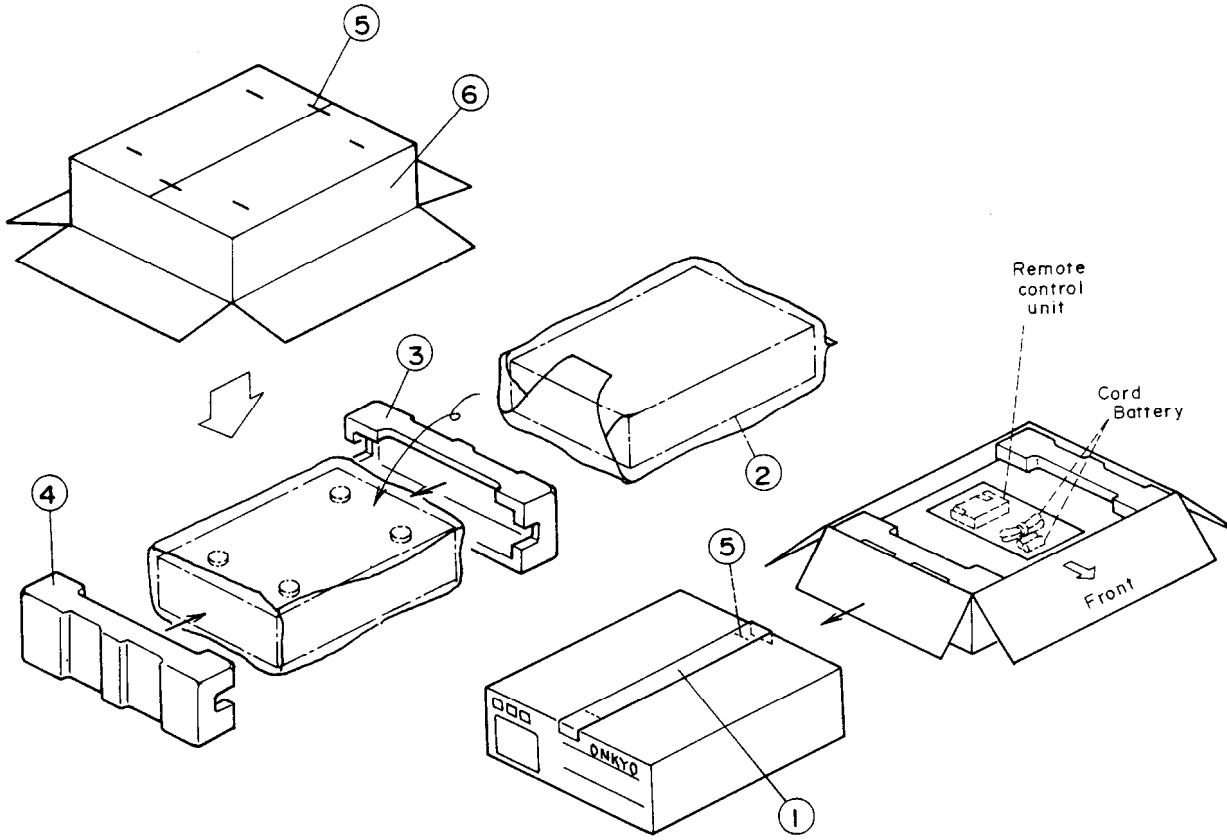
NOTE: ⟨G⟩ :Only 220/240V models

NOTE: THE COMPONENTS IDENTIFIED BY MARK ⚠ ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.

BLOCK DIAGRAM



PACKING VIEW



REF.NO.	PART NO.	DESCRIPTION
1	29110071-1	50×500mm, Damplon tape
2	29100037A	500×650mm, Poly-vinyl bag
3	29091304	Pad R
4	29091303	Pad L
5	282301	Sealing hook
6	29051996	Master carton box
	29110089	Adhesive tape, Tray panel
	Accessary bag ass'y	
	-120V models-	
	2010097	Connection cord
	24140121	RC-121C, Remote control unit
	3010054	UM-3, Two batteries
	29341465	Instruction manual
	29100097	350×250mm, Poly-vinyl bag
	2010169	Connection cord for remote control
	29365019	Warranty card (Only U.S.A. model)
	29358002G	Service station list (Only U.S.A. model)
	-220/240V models-	
	2010097	Connection cord
	24140121	RC-121C, Remote control unit
	3010054	UM-3, Two batteries
	29341466	Instruction manual
	29100097	350×250mm, Poly-vinyl bag
	2010169	Connection cord for remote control
	-Worldwide models-	
	2010097	Conection cord
	24140121	RC-121C, Remote control unit
	3010054	UM-3, Two batteries
	29341466	Instruction manual
	29100097	350×250mm, Poly-vinyl bag
	2010169	Connection cord for remote control
	25055040	CV-K-2, Conversion plug

ONKYO CORPORATION
International Division: Onarimon Yusen Bldg., 23-5, 3-chome, Nishi-Sinbashi, Minato-ku, Tokyo, Japan
Telex: 2423551 ONKYO J. Phone: 03-432-6981
ONKYO U.S.A. CORPORATION
200 Williams Drive, Ramsey, N.J. 07446 Tel. 201-825-7950